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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,897	01/24/2002	Kazuo Suto	32014-177530	3818

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Venable  
P.O. Box 34385  
Washington, DC 20043-9998

EXAMINER

CHOE, HENRY

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**10/053,897**

Applicant(s)  
**Suto**

Examiner  
**Henry Choe**

Art Unit  
**2817**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 24, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-19 is/are allowed.
- 6) ☒ Claim(s) 1, 7, 9, and 11 is/are rejected.
- 7) ☒ Claim(s) 2-6, 8, and 10 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan 24, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Rice et al (Figs. 4 and 6).

Regarding claim 1, Rice et al (Figs. 4 and 6) discloses an oscillator circuit comprising a PLL circuit (35, 45), an AGC circuit (65) which controls a gain of a modulating signal (70) and outputs a control signal (output of 65), a voltage controlled oscillation circuit (55) which controls an oscillation frequency of a signal (50) outputted from the PLL circuit (35, 45) based on the control signal (output of 65) and wherein the voltage controlled oscillation circuit (55) includes a first voltage controlled reactance unit (220 in Fig. 6) which inputs the signal (50) outputted from the PLL circuit (35, 45), a second voltage controlled reactance unit (215 in Fig. 6) which inputs the control signal (output of 65), and a high-frequency oscillation circuit (235, 240) which connects in parallel with the first (220 in Fig. 6) and second (215 in Fig. 6) voltage controlled reactance units which outputs the input signal.

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Regarding claim 7, the first voltage controlled reactance unit (220) includes a first varactor diode and a first capacitor and wherein the cathode of the first varactor diode (D1) is connected to one end of the first capacitor (C1), and the signal (50) outputted from the PLL circuit (35, 45) is inputted where the cathode and the one end are connected each other.

Regarding claim 9, the PLL includes an oscillator (30) which generates the reference signal, a frequency divider (60), and a comparator (35).

Regarding claim 11, the AGC circuit (65) which outputs the control signal (output of 65) on the basis of the signal outputted from the PLL circuit.

#### ***Allowable Subject Matter***

3. Claims 2-6, 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Reasons for Allowance***

4. Claims 12-19 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:  
Regarding claim 2, the closest prior art of record, Rice et al (Figs. 4 and 6) does not disclose the following limitations: the cathodes of the first varactor diode and second varactor diode are

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connected each other. Regarding claim 10, the closest prior art of record, Rice et al (Figs. 4 and 6) does not disclose the following limitations: the AGC circuit outputs the control signal on the basis of the frequency divided signal. Regarding claim 12, the closest prior art of record, Rice et al (Figs. 4 and 6) does not disclose the following limitations: a selection circuits which outputs control signals and second and third voltage controlled reactance units that input the control signals. Regarding claim 16, the closest prior art of record, Rice et al (Figs. 4 and 6) does not disclose the following limitations: a selection circuit which outputs control signals on the basis of the frequency divided signal.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (6,476,684; 4,994,768) are the PLL circuits with the control circuits.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (703) 305-0576. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal, can be reached on (703) 308-4909.

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A handwritten signature in black ink, appearing to read 'Henry Choe', with a long horizontal stroke extending to the right.

Name: Henry Choe

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